for subscribing to the offering IXC's services. There is no difference between these FCC tariff promotions and the cellular carriers' attempts in Louisiana to waive the activation fee if a customer converts to another cellular provider. Once again, the LPSC's reference to this "problem" highlights an inconsistency between federal and state regulation that Congress intended to remove when it preempted state regulation of CMRS providers.

As to the LPSC's disallowance of certain corporate discount plans, BellSouth notes that the FCC has also permitted carriers to make these kinds of promotional offerings to enhance competition and drive down prices for services.[19/] The LPSC's actions actually prevent the carriers from responding to each other competitively and, in this context, are not consistent with the Congressional objectives underlying Section 332 of the Act. In any event, individual cases of possible discriminatory rates or practices can be dealt with by the FCC, as Congress intended, since Sections 201, 202 and 208 of the Act still

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[19/] BellSouth notes that the legal challenges to these plans came not from consumers in Louisiana, but rather from competitors seeking to delay or inhibit the competitive offering of discount plans. That the LPSC sided with the competitors does not diminish the fact that the LPSC actions denied the public reduced rate services. At most, the examples cited show how competitors use the state regulatory process to stifle competition.

apply.

iii. Congress Was Fully Aware of the Duopoly Market Structure In States Such as Louisiana and It Still Preempted State Rate and Entry Regulation

The LPSC repeatedly attacks the duopoly market structure of cellular services and states that it is evidence of market failure. LPSC Petition at 27-29. The duopoly structure, however, is precisely the market structure Congress was aware of when it enacted Section 332 and decided to preempt state rate and entry regulation. The LPSC has presented no distinguishing characteristics that make its market structure unique, or different from what Congress was aware of when it declared its intention to preempt state regulation of CMRS providers. Moreover, given the FCC's commitment to auction PCS licenses by the end of the year, the LPSC's concerns should soon be fully addressed. Therefore, arguments attacking the duopoly market structure are insufficient to meet the substantial burden established by Congress.

iv. LPSC's Universal Service Concerns Fail to Meet the Statutory Burden

The LPSC raises a general concern that universal service and payment obligations are issues facing the LPSC and that its ability to ensure that these obligations are met may be harmed by preemption of its rate regulatory authority. LPSC Petition at 46-48. The LPSC once again fails to meet the statutory requirements for reliance on such a concern.

Section 332 states, in relevant part, that:

> [n]othing ... shall exempt providers of commercial mobile services (*where such services are a substitute for land line telephone exchange service for a substantial portion of the communications within such State*) from requirements imposed by a State commission on all providers of telecommunications services necessary to ensure universal availability of telecommunications services at affordable rates. 47 U.S.C. § 332(c)(3)(A)(emphasis added).

Clearly, reliance on universal service concerns to justify authority to continue rate regulation over CMRS providers is conditioned upon the parenthetical statement that a state show CMRS services "are a substitute for landline telephone exchange service for a substantial portion of the communications within such State." Louisiana has neither alleged nor offered facts that would meet this condition precedent. Therefore, its reliance on universal service concerns does not meet the statutory burden.

III. STATE REGULATION RAISES COSTS TO CONSUMERS AND IMPEDES COMPETITION

Although it is well established that the burden is on the state to provide evidence that meets the statutory burden to continue to regulate CMRS rates, BellSouth nevertheless provides some "pertinent" information regarding the cellular services market in Louisiana, using Section 20.13 of the Commission's Rules as guidance. Such information is useful to demonstrate that the CMRS market in Louisiana is not failing to protect consumers.

There is considerable evidence that competition in Louisiana is sufficient to adequately protect consumers in terms of rate trends and customer satisfaction. BellSouth attaches to these comments an affidavit of Dr. Richard P. Rozek, an economist with National Economic Research Associates, Inc. ("NERA") concerning state regulation of commercial mobile radio services. Dr. Rozek explains that state rate regulation of cellular services has actually raised costs to consumers and has impeded competition. Rozek affidavit at 3. For example, he notes that the LPSC's tariff process is pre-notification regulation that increases costs due to regulatory filing requirements, delays in effecting competitive responses, and outright denials of procompetitive rate plans. *Id.* at 5-8. All of these costs have prevented lower priced cellular services from being offered to Louisiana consumers.

Dr. Rozek explains that his econometric analysis of cellular prices in regulated and unregulated states indicates that regulation raises prices to consumers by about $8.63 per month for a typical bill. *Id.* at 3. He also compared cellular rates in New Orleans and Baton Rouge with comparably-sized cities in other states without regulation and he found that the prices in Louisiana are considerably higher than in unregulated cities. *Id.* at 4-5. Dr. Rozek concludes that the problems identified by the LPSC in the cellular industry are actually caused by regulation, and are not justification for continued rate regulation. *Id.* at 5-8.

IV. THE LPSC'S DIRECTION FOR FUTURE REGULATION IS ENTIRELY INCONSISTENT WITH FEDERAL REGULATORY POLICIES

Although the LPSC recognizes that introducing new regulation would require a separate showing under Section 332 and therefore is not an issue in this proceeding, BellSouth is nevertheless concerned about the direction the LPSC says it is taking for future CMRS regulation. Specifically, the LPSC states that in July 1994, it opened a docket to investigate whether it should regulate cellular carriers on a rate of return or some other basis in the future. LPSC Petition at 2, 39. This direction is entirely inconsistent with federal regulatory policies that seek to remove unwarranted regulatory burdens, relax Commission policies traditionally applied to non-competitive markets, and generally rely on competition, rather than regulation.

The FCC has recognized that regulatory schemes designed for monopoly-based services, such as rate-base regulation, are singularly inappropriate in markets characterized by competition among multiple service providers, even if that competition is not perfect. The fact that non-rate-base-regulated companies earn rates of return that exceed what would be allowed under rate-base regulation does not mean that the company's rates are unjust, unreasonable, or discriminatory. In fact, rate-base regulation has been criticized because it penalizes companies that increase efficiency and lower unit costs by reducing their revenue requirement. Rate-base regulation creates a disincentive to lower costs because lowering costs will reduce rates and net profits. That is why the FCC and numerous states have departed from rate-base regulation for many telecommunications services and have established price caps or some other form of "alternative regulation" which ensures greater long-term pricing stability for consumers, provides carriers pricing flexibility and increases their economic incentives for improved management efficiency.[20] BellSouth asserts, therefore, that the FCC should seriously question the motives underlying the LPSC petition, and should be very careful not to support through the back door the wholly inconsistent direction that the LPSC proposes to take for future CMRS regulation.

CONCLUSION

The LPSC petition has failed to satisfy the substantial burden established by the Congress to overcome federal pre-emption of state regulation of CMRS. Congress empowered the *FCC* to uniformly govern the offering of all commercial mobile radio services and provided a limited exception for individual states to rate regulate only where there is a demonstrated market failure. As Congress stated, "the Commission ... should be mindful of the Committee's desire to give the policies embodie[d] in Section 332(c) an ade-

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[20] *See, e.g., Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, Notice of Proposed Rulemaking, 2 FCC Rcd 5208 (1987)(*Notice*); Further Notice of Proposed Rulemaking, FCC Rcd 3195 (1988)(*Further Notice*); Report and Order and Second Further Notice of Proposed Rulemaking, 4 FCC Rcd 2873 (1989)(*AT&T Price Cap Order*); *modified on recon.*, 6 FCC Rcde 665 (1990)(*AT&T Price Cap Reconsideration Order*). *Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, 5 FCC Rcd 6786 (199)(*LEC Price Cap Order*), Erratum, 5 FCC Rcd 7664 (Com. Car. Bur. 1990) *modified on recon.*, 6 FCC Rcd 2637 (1991)(*LEC Price Cap Reconsideration Order*), *aff'd, National Rural Telecom Ass'n v. FCC*, 988 F.2d 174 (D.C. Cir. 1993).

quate opportunity to yield the benefits of increased competition and subscriber choice." House Report at 259-60. The Commission, having made a decision to detariff CMRS services, should deny the LPSC petition to continue LPSC tariff regulation in order to allow Congressional policy to take affect. Such action will send an important signal to the states that substantial cases must be brought before any exception to Congress' (and the FCC's) policy is granted.

Respectfully submitted,

BELLSOUTH CORPORATION

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September 19, 1994

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington D.C. 20554

In the matter of	)	
	)	
Petition on Behalf of the Louisiana Public Service Commission for Authority to Retain Existing Jurisdiction Over Commercial Mobile Radio Services Offered Within the State of Louisiana	)	PR File No. 94-SP5

DISTRICT OF COLUMBIA) **ss:**

AFFIDAVIT OF RICHARD P. ROZEK

I. BACKGROUND AND QUALIFICATIONS

(1) My name is Richard P. Rozek. I am an economist and a Vice President of National Economic Research Associates, Inc. (NERA), a firm specializing in the economics of competition and regulation. My business address is 1800 M Street, N.W., Washington, D.C. 20036.

(2) I will briefly summarize my background as it pertains to this submission. I earned a B.A. degree *cum laude* in mathematics from the College of St. Thomas in 1969. I earned a M.A. degree in mathematics from the University of Minnesota in 1971; and I earned M.A. and Ph.D. degrees in economics from the University of Iowa in 1974 and 1976, respectively.

(3) At the time I was awarded a Ph.D. degree, I was an assistant professor in the Department of Economics at the University of Pittsburgh. I continued in that position until January 1979. I then joined the Bureau of Economics at the U.S. Federal Trade Commission (FTC) in Washington, D.C. as a staff economist. I worked at the FTC in the antitrust and regulatory analysis divisions for six and one-half years, holding several senior staff positions including Deputy Assistant

Director for Antitrust. While at the FTC, I worked on analyses of mergers in high-technology industries and, more generally, on projects involving antitrust and regulatory issues in a wide variety of industries. In July 1985, I became the economist at the Pharmaceutical Manufacturers Association. I joined NERA in July 1987 as a Senior Consultant, and I was elected Vice President in September 1991. I have published approximately 30 articles in professional journals on topics such as competition policy, incentives for innovation, vertical integration and behavior of firms subject to regulatory constraints.

(4) Since joining NERA, I have worked on projects involving introducing competition into heretofore regulated industries, developing standards for effective competition, and assessing the competitiveness of particular markets as part of antitrust proceedings. I have testified at trials and in depositions on competition issues. I have submitted three affidavits to the U.S. District Court in connection with requests for waivers of the Modification of Final Judgment (MFJ).[1] I have submitted three affidavits on the competitive impact of the merger of the American Telephone and Telegraph Company (AT&T) and McCaw Cellular Communications, Inc. (McCaw) as part of the review of the application before the Federal Communications Commission (FCC) to transfer certain licenses from McCaw to AT&T.[2] Finally, I have submitted an affidavit to the FCC on bidding issues in connection with auctions for spectrum.[3] I attach a copy of my current vita (Attachment A).

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[1] Affidavit of Charles L. Jackson and Richard P. Rozek in the matter of *U.S. v. Western Electric Co. and American Telephone and Telegraph Company*, U.S. District Court for the District of Columbia, Civil Action No. 82-0192-HHG, supporting the "Request by BellSouth Corporation for a Waiver of the Modification of Final Judgment to Allow BellSouth Corporation to Provide Integrated MultiLATA Cellular Service," filed May 9, 1991; Affidavit of Richard P. Rozek and Harold Ware in the matter of *U.S. v. Western Electric Co. and American Telephone and Telegraph Company*, U.S. District Court for the District of Columbia, Civil Action No. 82-0192-HHG, supporting "BellSouth Corporation's Opposition to AT&T's Motion for a Waiver of Section I(D) of the Decree Insofar as it Bars the Proposed AT&T - McCaw Merger," filed June 28, 1994; and Affidavit of Richard P. Rozek and Harold Ware in the matter of *U.S. v. Western Electric Co. and American Telephone and Telegraph Company*, U.S. District Court for the District of Columbia, Civil Action No. 82-0192-HHG, supporting the "Reply of BellSouth Corporation in Support of its Motion for Generic Wireless Relief," filed September 2, 1994.

[2] *See* "Petition to Impose Conditional Grant to Create a Competitive Market, or Deny as Filed," "BellSouth Reply" and "Further Comments Supplementing BellSouth's Petition," before the Federal Communications Commission in the matter of *AT&T-McCaw Merger, In re applications of American Telephone and Telegraph Company and Craig O. McCaw For Consent to the Transfer of Control of McCaw Cellular Communications, Inc. and its Subsidiaries*, File No. ENF-93-44, filed November 1, 1993, January 18, 1994, and June 20, 1994, respectively.

[3] Affidavit of Richard P. Rozek on behalf of BellSouth Corporation before the Federal Communications Commission in the matter of *Amendment of the Commission's Rules to Establish New Personal Communications Services*, GEN Docket No. 90-314, filed August 30, 1994.

II. PURPOSE AND SUMMARY

(5) The purpose of this affidavit is to address issues raised by the Louisiana Public Service Commission (LPSC) in its petition to continue regulating commercial mobile radio services (CMRS).[4] Generally, state regulation of CMRS raises prices of cellular mobile telephone services to consumers. Based on statistical analysis of cellular rates, consumers in states with regulation of cellular providers at both wholesale and retail levels pay higher monthly prices for cellular services than consumers in states without regulation. With respect to Louisiana, prices for cellular services in Baton Rouge and New Orleans are high in comparison to demographically similar cities in states without regulation.

(6) Some of the other concerns raised by LPSC (e.g. "conscious parallel pricing") are actually caused by LPSC regulation and thus do not provide a basis for the LPSC continuing to regulate CMRS. State regulation impedes competition among CMRS providers. LPSC rate regulation is therefore not a solution to these concerns.

III. REGULATION IN LOUISIANA DOES NOT BENEFIT CONSUMERS

A. Consumers Pay Higher Prices Due to State Regulation

(7) Our econometric analysis reveals that state regulation raises costs to consumers.[5] Specifically, we constructed a regression model using 1993 cellular rates in the top 100 MSAs as the dependent variable to examine the effect of state regulation.[6] The rates are the minimum charge for the average cellular customer with usage of 125 minutes per month (75 percent peak and 25 percent off-peak). In analyzing the rates, we control statistically for differences in: income; population;

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[4] *Petition on Behalf of the Louisiana Public Service Commission for Authority to Retain Existing Jurisdiction over Commercial Mobile Radio Services Offered Within the State of Louisiana* before the Federal Communications Commission, filed August 5, 1994 (LPSC Petition).

[5] There are considerable, well documented benefits to deregulation in a number of industries including telecommunications. *See* C. Winston, "Economic Deregulation: Days of Reckoning for Microeconomists," *Journal of Economic Literature*, Vol. 31, September 1993, pp. 1263-1289. Winston concludes "the evidence clearly shows that microeconomists' predictions that deregulation would produce substantial benefits for Americans have been generally accurate; hence their predictions of additional benefits from continuing the process should be taken seriously" (footnote omitted) (p. 1286.)

[6] *Cellular Rates*, Paul Kagan Associates, Inc., January 1994, Vol. 1, pp. 47-48. We checked the data for those cases in which there were substantial differences ($10.00 or more per month) between the lowest reported rates for the two providers in a MSA. We recalculated the minimum charge based on the raw data for the relevant plans reported by Kagan. This resulted in changes to four of the 200 prices in the top 100 areas.

number of RBOC providers in the market (zero, one or two); regulation of wholesale and retail rates;[7] and the operating company i.e. BellSouth, Ameritech, NYNEX, Bell Atlantic, Southwestern Bell, AirTouch, US West, McCaw and other. The specification of the model is presented in Attachment B. The regression results show that state regulation of both wholesale and retail rates raises prices by $8.63 per month.

(8) These results are consistent with the statistical analysis by Hausman in which he controls for similar factors (regulation, population, income and commuting distance). He finds that cellular prices are about 5-10 percent higher in states that regulate CMRS.[8]

B. Cellular Rates in Baton Rouge and New Orleans are Higher than in Comparable Cities in States Without Regulation

(9) The econometric analysis described above demonstrates that state regulation of cellular providers generally results in higher prices for consumers. However, the LPSC claims that "regulation in this market by the Louisiana Commission has been relatively light-handed and has served to ensure that competition may grow while at the same time preventing Louisiana ratepayers from paying unjust, unreasonable and discriminatory rates in this emerging industry."[9] To determine whether the LPSC claim was valid, we focused on two major cities in Louisiana: Baton Rouge and New Orleans. For each of the Louisiana cities, we matched, using demographic data, three other cities served by BellSouth in states without regulation. Cities were selected based on population, income, and distribution of earnings by industry. For Baton Rouge, the matched cities are: Columbia, South Carolina; Chattanooga, Tennessee; and Birmingham, Alabama. The three cities matched to New Orleans are: Orlando, Florida; Jacksonville, Florida; and Indianapolis, Indiana. *See* Table 1 in Attachment C. For all eight cities, we then obtained data from BellSouth on its lowest monthly rate for cellular service in 23 usage categories ranging from 10 minutes of use

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7 A regulated jurisdiction requires a cellular provider to obtain a Certificate of Public Convenience and Necessity and file tariffs for both the wholesale and retail levels. There are nine jurisdictions in this category: Alaska, California, Hawaii, Louisiana, Massachusetts, Nevada, New York, West Virginia and Puerto Rico. "Summary: State Regulation of Cellular Telephone Service," Cellular Telecommunications Industry Association, January 1994.

8 Affidavit of Professor Jerry A. Hausman before the Public Service Commission of South Carolina in re: *Whether or Not the South Carolina Public Service Commission Should File a Petition with the Federal Communications Commission under Section 332(c) (3) (B) of the Communication Act of 1934 Seeking Approval to Continue with Its Rate and Entry Regulation of all Commercial Mobile Radio Service (CMRS)*, filed June 13, 1994, pp. 3-4. Hausman considered the minimum monthly bill based on usage of 160 minutes/month with 80 percent peak usage.

9 LPSC Petition, *op. cit.*, p. 1.

per month to 2,000 minutes of use per month. We compared the rates for Baton Rouge and New Orleans to the weighted average rates of their respective three city comparison group in each usage category. For Baton Rouge, the rate was higher than the three city average in all 23 usage categories. For New Orleans, the rate was higher in 22 of the 23 categories. That is, consumers in major cities in Louisiana paid higher prices for cellular service than consumers in similar cities located in states without regulation. *See* Table 2 in Attachment C.

(10) Moreover, the share of the population using cellular services (penetration) was lower in the two Louisiana cities compared to the cities in the unregulated comparison groups. *See* Table 3 in Attachment C. Consumers in Louisiana pay higher prices and have less access to cellular technology than consumers in similar, but unregulated, cities.

C. Problems Identified by the LPSC are Actually Caused by Regulation

1. Pre-Notification Facilities Parallel Pricing

(11) One concern of the LPSC is that the existing cellular providers are "consciously parallel pricing."[10] It claims that it needs to continue regulating to address this problem.[11] Actually, it is the LPSC regulation itself that most likely causes the parallel pricing. In general, regulation requiring market participants to reveal pricing information may have negative impacts on competition. LPSC requires cellular providers to file proposed rates and rate increases as well as detailed product specifications (rate plans). In addition, the LPSC regulations stipulate that this information be made available for public inspection in the Official State Journal and in the official journal of each parish where the rate schedule would be applicable.[12]

(12) The literature in experimental economics[13] suggests that there are four possible effects that may occur as a result of pre-notification of strategic information; disclosure of information may: 1) stimulate competition, 2) discourage competition, 3) facilitate collusion, and

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[10] LPSC Petition, *op. cit.*, p. 28.

[11] "The rates charged by CMRS providers in Louisiana indicate that the market for CMRS is not competitive." *Ibid.*, p. 33.

[12] *Ibid.*, Exhibit 3.

[13] J. Hey, *Experiments in Economics*, Oxford: Basil Blackwell Ltd., 1991. Professor Hey demonstrates that "it is indeed possible to generate economic data under controlled conditions, and that by so doing economists are better able to understand existing theories and develop new ones." (p. 2).

4) reduce efficiency.[14] As will be described below, the last three effects apply to the case of regulating CMRS in Louisiana.

(13) Assuming there is a homogeneous product and that there is free market entry, the disclosure of competitors' pricing strategies may help to create a level playing field. Among the wireless technologies, however, there are significant differences in the products (i.e. cellular, paging, enhanced specialized mobile radio (ESMR), personal communications services (PCS)). Wireless providers are pursuing several types of technology, and each technology has different capabilities. For example, existing paging systems offer one-way communication, whereas cellular provides two-way communication. The differences in quality, coverage, delivery and service mean wireless products are classified as differentiated products. In addition, firms entering the market must overcome hurdles such as acquiring spectrum. These two characteristics (differentiated products and entry hurdles) violate the conditions usually associated with procompetitive benefits of revealing information. That is, regulation of CMRS such as that which exists in Louisiana is unlikely to stimulate competition.

(14) Alternatively, market participants may exploit information about competitors rates and rate plans to impede competition. For example, if allowed access to a competitor's rate plan, a wireless provider can determine to what extent its competitor is targeting a specific consumer group. That is, it gains competitively sensitive advance notice of its competitors marketing strategies. Additionally, pre-notification of rates or rate changes reveals information about the providers forecast of market demand to its rivals. The associated adverse consequences of revealing such competitively sensitive information may make firms reluctant to engage in price competition.

(15) Within the context of cellular rate pre-notification, the LPSC has up to 12 months from the filing date to render a full decision on a proposed rate schedule.[15] The stated price, therefore, is likely to be established based on incomplete and outdated supply and demand information. It may be an inaccurate price and not reflect actual supply and demand conditions at the time the rate becomes effective. This need to make price decisions far in advance contributes to inefficiency. Furthermore, the need for advance filing of rate information inhibits a provider's ability to respond quickly to changes in market conditions.

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[14] M. Bidwell, H. Nalbantian and R. Rozek, *Public Disclosure of Bids and Bidders*, Prepared for New York Telephone Company, June 1991, pp. 10-13.

[15] LPSC Petition, *op. cit.*, Exhibit 3.

(16) Market participants can also use the opportunity created by the publicly disclosed proposed rate increases to exploit consumers. A previous version of the Department of Justice (DOJ) Merger Guidelines suggests "collusive agreements are more likely to persist if participating firms can quickly detect and retaliate against deviations from the agreed price or other conditions. . .where detailed information about specific transactions or individual price or output levels is readily available to competitors."[16] Both the DOJ and FTC have long expressed reservations about the value of public disclosure of information, and are particularly concerned about situations in which availability of price or output information could assist firms in setting or enforcing an agreed upon price.[17]

(17) In controlled laboratory experiments where information was openly exchanged, higher prices and a reduction in market efficiency resulted.[18] Plott conducted an experimental study in which price announcements were made known immediately to all auction participants, price increases required advance notice and all transactions were required to be made at the advertised price. While prices fell over time, they did so only gradually. Plott concluded that prices were above those that would have otherwise existed. When the disclosure practices were removed, prices immediately fell.

> "Advance notice given sufficiently in advance of the deadline for advance notification provides a signal to other sellers. . . Buyers do not anticipate discounts because the institutions prevent them. Furthermore, since any price concessions must be offered to all, buyers can see that price concessions can be costly to the seller and thus have less expectation of winning them."[19]

(18) Pre-notification may also lead to reduced efficiency. A study by Isaac and Walker of the effect of information on efficiency provides an example.[20] The study assessed efficiency in

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16 "Merger Guidelines of the Department of Justice," 49 Federal Register 26824, June 29, 1984, Section 3.42.

17 "Department of Justice and Federal Trade Commission Horizontal Merger Guidelines," April 2, 1992, pp. 34-35, 37. The FTC challenged the marketing practices of producers of lead-based antiknock compounds. One of the challenged practices was pre-announcement of price changes. "The theory [of the case] is based on the hypothesis that competition is aided by uncertainty about rival firms' actions and/or reactions to pricing decisions." D. Grether and C. Plott, "The Effects of Market Practices in Oligopolistic Markets: An Experimental Examination of the Ethyl Case," *Economic Inquiry*, Vol. 22, No. 4, October 1984, p. 480.

18 C. Plott, "Industrial Organization Theory and Experimental Economics," *Journal of Economic Literature*, Vol. 20, No. 4, December 1982, pp. 1518-1519.

19 *Ibid.*, pp. 1518-1519.

20 R. Isaac and J. Walker, "Information and Conspiracy in Sealed Bid Auctions," *Journal of Economic Behavior and Organization*, Vol. 6, 1985, pp. 139-159.

terms of the ability of a market adjustment process to secure the optimal matching of goods to bidders. One view is that diffusion of information leads to increases in efficiency to the extent that it enables individual buyers and sellers to better assess market conditions and to make more rational economic decisions. However, Isaac and Walker found that disclosure of information more likely will undermine efficiency to the extent that it facilitates collusive behavior. Their experiment demonstrates a modest, yet statistically significant, reduction in efficiency associated with the expansion of public information.

2. Corporate Rate Plan

(19) In some states, BellSouth offers corporate rate plans with individual billing to employees of a company or members of other types of organizations. Such plans expand usage of cellular services. They represent an example of procompetitive (output expanding) differential pricing. However, BellSouth is unable to offer such plans in Louisiana. The LPSC requires that BellSouth send a single bill to one billing address for all numbers under the account receiving the corporate discounted rate. The entire bill must be paid by the entity receiving the bill. The LPSC erroneously believes its actions in stopping plans with individual billing are in the public interest. "In these instances, the LPSC has advised the providers that this type of misapplication of corporate rates was inappropriate and that the rate disparity must be rectified."[21] The opposite is in fact true; the LPSC has prevented consumers from gaining access to low priced services spurred by competition.

(20) Both BellSouth and Radiofone, the facilities-based cellular providers in Louisiana, have complained to the LPSC about their rival offering corporate rates that are inconsistent with the tariff.[22] This illustrates yet another problem with regulation of industries with multiple competitors. Rivals sometimes use the regulatory process to prevent price competition. Not only do the LPSC policies impose costs on firms to comply with the regulation, they impede the very competition LPSC wants to encourage.[23]

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[21] LPSC Petition, *op. cit.*, p. 16.

[22] *Ibid.*, Exhibit 33.

[23] *Ibid.*, p. 2.

IV. CONCLUSION

(21) State regulation of CMRS raises prices to consumers and limits consumers' access to innovative technologies. The federal government perceived such problems when it prohibited states from regulating both entry into CMRS and rates of providers. The LPSC has not provided persuasive evidence to support its petition that state rate regulation should be continued in Louisiana.

Richard P. Rozek

Richard P. Rozek

Subscribed and sworn to before me

this 19th day of September 1994.

Deborah Lewis Dempsey

Notary Public

My Commission Expires April 30, 1995

ATTACHMENT A

RICHARD P. ROZEK

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(202) 466-9295

HOME ADDRESS:

1916 Swan Terrace
Alexandria, VA 22307

Dr. Rozek received a B.A. degree in Mathematics with honors from the College of St. Thomas, a M.A. degree in Mathematics from the University of Minnesota, and M.A. and Ph.D. degrees in Economics from the University of Iowa.

Dr. Rozek began his professional career as an Assistant Professor at the University of Pittsburgh, where he taught industrial organization, mathematical economics and microeconomic theory. Dr. Rozek worked for over six years in the Bureau of Economics at the Federal Trade Commission in a series of senior staff positions including Deputy Assistant Director for Antitrust. While at the FTC, Dr. Rozek gained experience with antitrust and regulatory issues involving a variety of industries including electric and gas utilities, petroleum, soft drinks, for-profit and nonprofit hospitals, motion pictures and various high technology industries. Dr. Rozek also worked at the Pharmaceutical Manufacturers Association where he conducted research on issues such as the cost to develop a new drug, pharmaceutical industry profitability, benefits and costs of intellectual property protection, productivity of research and development personnel in the pharmaceutical industry, and reform of the health care reimbursement system.

Since joining NERA, Dr. Rozek has worked on projects involving regulated industries, including design of bidding processes for power generation markets and analysis of hospital rate regulation schemes; competition analyses in industries such as convenience food, electric equipment, electric utilities, health care, newspaper, pharmaceutical, telecommunications, and professional services; damage estimates in contract dispute, patent infringement, personal injury and libel cases; compensation issues in professional sports; and public policy studies in the pharmaceutical industry (intellectual property protection, parallel trade and pricing).

Dr. Rozek's articles have appear in such journals as *American Economist, Applied Economics, Contemporary Policy Issues, Electricity Journal, Energy Journal, Economics Letters, Journal of Economic Integration, Journal of Economics, Mathematical Modelling, Metroeconomica* and *Research Policy*.

EDUCATION:

UNIVERSITY OF IOWA
Ph.D., Economics, 1976
M.A., Economics, 1974

UNIVERSITY OF MINNESOTA
M.A., Mathematics, 1971

COLLEGE OF ST. THOMAS
B.A., Mathematics, 1969 (cum laude)

EMPLOYMENT:

NATIONAL ECONOMIC RESEARCH ASSOCIATES, INC.--Washington, D.C.

1991- Vice President.

1987-91 Senior Consultant. Worked on projects involving regulated industries including design of bidding processes for power generation markets and analysis of hospital rate regulation schemes; competition analyses in industries such as convenience food, electric equipment, electric utility, hospital, newspaper, pharmaceutical, telecommunications and professional services; damage estimates in contract dispute, patent infringement, personal injury and libel cases; compensation issues in professional sports; and public policy studies in the pharmaceutical industry (intellectual property protection, parallel trade and pricing).

PHARMACEUTICAL MANUFACTURERS ASSOCIATION--Washington, D.C.

1985-87 Senior Analyst, Economics. Analyzed issues affecting the research based pharmaceutical industry including intellectual property protection, costs and benefits of pharmaceutical therapies, the cost to develop a new pharmaceutical product, industry profitability and Medicare/Medicaid reform.

FEDERAL TRADE COMMISSION--Washington, D.C.

1979-85 Staff Economist, Antitrust and Regulatory Analysis Divisions, Bureau of Economics. Analyzed antitrust and regulatory issues involving computers, hospitals, oil, public utilities, securities (stock and futures), soft drinks, and various consumer goods industries.

1982-83 Deputy Assistant Director for Antitrust, Division of Antitrust, Bureau of Economics. Supervised eight staff economists working on a broad set of antitrust matters.

UNIVERSITY OF PITTSBURGH--Pittsburgh, Pennsylvania

1976-79 Assistant Professor, Department of Economics. Taught graduate and undergraduate courses in general equilibrium theory, mathematical economics, mathematics for economists, industrial organization, operations research and microeconomic theory; served on departmental committees; and supervised graduate student research projects.

UNIVERSITY OF IOWA--Iowa City, Iowa

1973-76 Research Assistant, Teaching Assistant, Instructor, College of Business Administration.

ST. MARY'S COLLEGE--Winona, Minnesota

1972-73 Instructor, Department of Mathematics. Taught undergraduate courses in number theory, integral and differential calculus, probability and statistics.

UNIVERSITY OF MINNESOTA--Minneapolis, Minnesota

1969-72 Teaching Assistant, Department of Mathematics.

PROFESSIONAL ACTIVITIES:

Publications and Speeches are listed in separate sections.

Referee for *Antitrust Bulletin* (1988 and 1992), *Applied Economics* (1983, 1984 and 1989), *Contemporary Policy Issues* (1991), *Managerial and Decision Economics* (1989), *Social Science Quarterly* (1987).

Invited Participant, U.S. Information Agency, American Participant Program in Argentina and Brazil, 1990.

Invited Discussant, Western Economic Association Annual Meeting, Economic Research at the FTC, 1986.

Invited Discussant, Illinois Institute of Technology, Center for the Study of Ethics in the Professions, Conference on Intellectual Property, 1985.

Invited Participant, Institute of Health Economics and Social Studies, Seminar on the Pharmaceutical Industry, 1978.

Awarded Summer Research Grant, University of Pittsburgh, Faculty of Arts and Sciences, 1978.

Invited Participant, Chicago Board of Trade, Summer Intern Program, 1977.

Received Commendation for Excellence in Teaching, University of Iowa, 1976.

Awarded Teaching and Research Assistantships, University of Minnesota and University of Iowa, 1969-1972 and 1973-1976, respectively.

Awarded HEW Scholarship, College of St. Thomas, 1965-1969.

Member, American Economic Association, Beta Gamma Sigma (National Honor Society in Business and Management), Delta Epsilon Sigma (National Scholastic Honor Society), Omicron Delta Epsilon (International Honor Society in Economics).

PUBLICATIONS:

"A Critique of the GAO Report on Differences in Prices for Prescription Drugs Between Canada and the United States," *Journal of Research in Pharmaceutical Economics*, forthcoming in summer of 1994.

"The Consequences of Pharmaceutical Product Patenting: A Critique," *World Competition*, Volume 16, March 1993, pp. 91-106.

"Parallel Trade in Pharmaceuticals: The Impact on Welfare and Innovation," (with R. Rapp), *Journal of Economic Integration,* Volume 7, Autumn 1992, pp. 181-203.

"Bidding Theory and the Baseball Player Market," *Kentucky Journal of Economics and Business,* Volume 11, September 1991, pp. 15-28.

"Discounted Cash Flow Analysis in Patent Infringement Litigation," (with C. Salisbury), *Licensing Economics Review,* Volume 1, August 1991, pp. 7-10.

"Toward a Definition of Effective Competition in Energy Markets," *The Electricity Journal,* Volume 4, July 1991, pp. 28-37.

"Benefits and Costs of Intellectual Property Protection in Developing Countries," (with R. Rapp), *Journal of World Trade,* Volume 24, October 1990, pp. 75-102. Reprinted as "How Property Protection Fuels Economies," *les Nouvelles,* Volume 27, September 1992, pp. 156-170.

"The Importance of Flexibility in Competitive Resource Procurement," (with L. Nordgulen), *The Electricity Journal,* Volume 3, June 1990, pp. 48-59.

"Competitive Bidding in Electricity Markets: A Survey," *The Energy Journal,* Volume 10, October 1989, pp. 117-138.

"Summary of 'Price Discrimination and Patent Policy' by J. Hausman and J. MacKie-Mason," *Manual on the Economics of Antitrust Law,* American Bar Association, Sixth Supplement, Summer 1989, pp. 11.1-11.2

"Technology Transfer: Licensing's Crucial Role," *Economic Impact,* Number 66, March 1989, pp. 50-54.

"Protection of Intellectual Property Through Licensing: Efficiency Considerations," *Journal of World Trade,* Volume 22, October 1988, pp. 27-34.

"Differences in Service Mix Between For Profit and Nonprofit Hospitals," *New York Economic Review,* Volume 18, Fall 1988, pp. 43-56.

"Bibliometric Analysis of U.S. Pharmaceutical Industry Research Performance," (with F. Narin), *Research Policy,* Volume 17, June 1988, pp. 139-154.

"A Nonparametric Test for Economies of Scope," *Applied Economics,* Volume 20, May 1988, pp. 653-663.

"Intellectual Property and Economic Growth," *Economic Impact,* Number 62, March 1988, pp. 43-47. Reprinted in *Viewpoint,* Volume 18, Summer 1989, pp. 23-29.

"A Bidding Process for a Centralized Market With Trading Out of Equilibrium," (with S. Wu), *Journal of Economics/Zeitschrift fur Nationalokonomie,* Volume 47, October 1987, pp. 287-307.

"Diversification by Nonprofit Firms: Competitive Implications," *Kentucky Journal of Economics and Business,* Volume 7, 1986-87, pp. 33-42.

"Protection of Intellectual Property Rights: Research and Development Decisions and Economic Growth," *Contemporary Policy Issues,* Volume 5, July 1987, pp. 54-65. Reprinted in *Intellectual Property (Patents, Copyrights, Trademarks) Policy and International Negotiations* (B.S. Dameron, editor), Washington: International Law Institute, 1987; and *Intellectual Property Rights in Science, Technology, and Economic Performance: International Comparisons* (F.W. Rushing and C.G. Brown, editors), Boulder: Westview Press, 1990.

"On the Behavior of For Profit and Nonprofit Hospitals," *Proceedings of the Inaugural Meeting of the Pennsylvania Economic Association,* Volume 1, May 1986, pp. 200-212.

"Competition as a Complement to Regulation," *The Energy Journal,* Volume 6, July 1985, pp. 79-90.

"The Over-Capitalization Effect with Diversification and Cross Subsidization," *Economics Letters,* Volume 16, October 1984, pp. 159-163.

"The Role of Market Power Measures in the Search for an Antitrust Case," *The American Economist,* Volume 28, Fall 1984, pp. 36-40.

"Rate of Return Regulation and Vertical Integration Under Uncertainty," *Mathematical Modelling,* Volume 4, July 1983, pp. 87-96.

"Brand Identification and Advertising: The Case of a Generic Trademark," *Applied Economics,* Volume 14, June 1982, pp. 235-248.

"A Model of the Firm's Demand for Money Under Uncertainty," (with S. Wu), *Metroeconomica,* Volume 31, June 1979, pp. 225-241.

"The Effects of Imperfect Information on Market Equilibrium," *Papers and Proceedings: Southwestern Society of Economists,* Volume 4, March 1979, pp. 235-240.

"The Formation of a Trader's Reservation Price," *Atlantic Economic Journal,* Volume 6, July 1978, p. 92.

"Numerical Examples of a Market Adjustment Mechanism," (with G. Moulton), *Modeling and Simulation,* Volume 8, December 1977, pp. 1027-1031.

THESES:

"A Non-Tatonnement Bidding Process for a Centralized Market," unpublished Ph.D. thesis, University of Iowa, 1976.

"Topologies on Function Spaces," unpublished M.A. thesis, University of Minnesota, 1971.

SPEECHES:

"Meeting the Future Challenges of Health Care Reform," speech before the Institute for International Research Conference on Patient Information, Education and Compliance Programs, 1993.

"Setting The Economic Scene for the Next Seven Years: Health Care," speech before the Annual Meeting of the Actuarial Society of Greater New York, 1993.

"Parallel Trade in Pharmaceuticals: The Impact on Welfare and Innovation," speech before the Southern Economic Association Annual Meeting, 1992.

"The Use of Bidding and Auctioning Models in Competition Analyses," speech before the NERA Twelfth Annual Antitrust & Trade Regulation Seminar, 1991.

"Benefits and Costs of Intellectual Property Protection in Developing Countries," a series of speeches before academic, business and government groups in Argentina and Brazil, 1990; lecture to graduate students in the International Management Program at the University of Maryland, 1990; and presentation at a seminar sponsored by the Minister of Health in Turkey, 1992.

"Competitive Procurement of Generating Capacity: The Importance of Flexibility," speech before the Pacific Northwest Supply and Demand-Side Competitive Bidding Workshop, 1990; presentation at a Federal Energy Regulatory Commission Staff Seminar, 1990.

"Merger Analysis and Policy: Three Examples of Geographic Market Definition Under the DOJ Guidelines," speech before the NERA Tenth Annual Antitrust & Trade Regulation Seminar, 1989.

"Competitive Bidding in Energy Markets: A Policy Analysis," speech before the Eastern Economic Association Annual Meeting, 1989.

"Bibliometric Analysis of U.S. Pharmaceutical Industry Research Performance," speech before the Southern Economic Association Annual Meeting, 1987.

"Diversification by Nonprofit Firms: Competitive Implications," seminar presentations at the University of Hartford, University of Southern California and University of Iowa, 1987.

"Public Policy Issues Affecting the U.S. Pharmaceutical Industry," seminar presentation at Villanova University, 1987.

"Measuring the Returns to the R&D Investment," seminar presentation at the National Institutes of Health STEP Seminar, 1987.

"Protection of Intellectual Property Through Licensing: Efficiency Considerations," speech before the Eastern Economic Association Annual Meeting, 1987.

"The Protection of Intellectual Property Rights: R&D Decisions and Economic Growth," speech before the Western Economic Association Annual Meeting, 1986; and a revised version presented at the National Science Foundation--U.S. Chamber of Commerce Symposium on Protection of Intellectual Property Rights in Science, Technology, and Economic Performance: International Comparisons, 1989.

"Service Mix and Economies of Scope in the Hospital Industry," speech before the Eastern Economic Association Annual Meeting, 1986.

"On the Behavior of For Profit and Nonprofit Hospitals," speech before the Pennsylvania Economic Association Annual Meeting, 1986.

"The Cost Effectiveness of Drugs," speech before the Southeastern Pharmacy Education Conference, 1985.

"Competition as a Complement to Regulation," speech before the Eastern Economic Association Annual Meeting, 1985.

"The Role of Market Power Measures in the Search for an Antitrust Case," speech before the Midwest Economics Association Annual Meeting, 1984.

"Rate of Return Regulation and Vertical Integration Under Uncertainty," speech before the Southern Economic Association Annual Meeting, 1983.

"Advertising and Generic Trademarks," speech before the Eastern Economic Association Annual Meeting, 1980.

"Mathematics for Economists: A Two Course Sequence," speech before the Annual Meeting of the Mathematical Association of America--Maryland, District of Columbia, Virginia Section, 1979.

"The Effects of Imperfect Information on Market Equilibrium: A Survey," speech before the Southwestern Society of Economists Annual Meeting, 1979.

"The Formation of a Trader's Reservation Price," speech before the Annual Pittsburgh Modeling and Simulation Conference, 1978.

"The Effects of Uncertainty on the Firm's Demand for Money," speech before the Southwestern Economics Association Annual Meeting, 1978.

"Numerical Examples of a Market Adjustment Mechanism," speech before the Annual Pittsburgh Modeling and Simulation Conference, 1977.

"A Bidding Process for a Centralized Atomistic Market with Trading Out of Equilibrium," seminar presentations at the University of Missouri and University of Pittsburgh, 1976, and the Federal Trade Commission, 1978; speech before the Southern Economic Association Annual Meeting, 1978; and a revised version presented at a Federal Energy Regulatory Commission Staff Seminar, 1987.

"Uncertainty, Transactions Motive, and the Demand for Money," speech before the Econometric Society Meeting, 1974.